



## Complete Summary

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### TITLE

Osteoporosis: percentage of patients, regardless of age, with a diagnosis of osteoporosis who either received both calcium and vitamin D or had documented counseling regarding both calcium and vitamin D intake, and exercise at least once within 12 months.

### SOURCE(S)

American Academy of Family Physicians, American Academy of Orthopaedic Surgeons, American Association of Clinical Endocrinologists, American College of Rheumatology, Endocrine Society, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Osteoporosis physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Oct. 15 p. [7 references]

## Measure Domain

### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the percentage of patients regardless of age, with a diagnosis of osteoporosis who either received both calcium and vitamin D or had documented counseling regarding both calcium and vitamin D intake, and exercise at least once within 12 months.

### RATIONALE

Vitamin D and calcium and exercise are important in the treatment of osteoporosis.\*

\*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and support the rationale:

Promote a diet with adequate calcium content (500 to 1,000 mg/day). Promote adequate vitamin D intake (at least 400 IU/day; as much as 800 IU/day in the elderly). (American Association of Clinical Endocrinologists [AACE])

Advise all patients to obtain an adequate intake of dietary calcium (at least 1200 mg per day, including supplements if necessary) and vitamin D (400 to 800 IU per day for individuals at risk of deficiency). (National Osteoporosis Foundation [NOF])

Supplementation with both calcium and vitamin D (plain or activated form) should be required for glucocorticoid-treated patients. (ACR)

All patients require education regarding Vitamin D and calcium supplementation. (American Gastroenterological Association [AGA])

All patients require education regarding the importance of lifestyle changes (e.g., regular exercise, smoking cessation) as well as vitamin D and calcium supplementation. (AGA)

All patients should receive education on the importance of lifestyle changes (e.g., engaging in regular weight-bearing exercise, quitting smoking, avoiding excessive alcohol intake). (AGA)

Advocate regular weight-bearing exercise. Minimize risk of falls and injuries with gait and balance training. (AACE)

Advise patients to engage in weight-bearing and muscle-strengthening exercise reduce the risk of falls and fractures. (NOF)

## **PRIMARY CLINICAL COMPONENT**

Osteoporosis; calcium; vitamin D; exercise

## **DENOMINATOR DESCRIPTION**

All patients, regardless of age, with the diagnosis of osteoporosis (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## **NUMERATOR DESCRIPTION**

Patients who are either receiving both calcium and vitamin D or have been counseled regarding both calcium and vitamin D intake, and exercise at least once within 12 months

## **Evidence Supporting the Measure**

## **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

## NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [American Gastroenterological Association medical position statement: guidelines on osteoporosis in gastrointestinal diseases.](#)
- [Physician's guide to prevention and treatment of osteoporosis.](#)
- [American Association of Clinical Endocrinologists medical guidelines for clinical practice for the prevention and treatment of postmenopausal osteoporosis: 2001 edition, with selected updates for 2003.](#)

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Use of this measure to improve performance  
Variation in quality for the performance measured

### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Feldstein A, Elmer PJ, Orwoll E, Herson M, Hillier T. Bone mineral density measurement and treatment for osteoporosis in older individuals with fractures: a gap in evidence-based practice guideline implementation. Arch Intern Med 2003 Oct 13;163(18):2165-72. [46 references] [PubMed](#)

Mudano AS, Casebeer L, Patino F, Allison JJ, Weissman NW, Kiefe CI, Person S, Gilbert D, Saag KG. Racial disparities in osteoporosis prevention in a managed care population. South Med J 2003 May;96(5):445-51. [PubMed](#)

U.S. Department of Health and Human Services. Bone health and osteoporosis: a report of the Surgeon General. Rockville (MD): U.S. Department of Health and Human Services, Office of the Surgeon General; 2004.

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Ambulatory Care  
Physician Group Practices/Clinics

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

**LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Individual Clinicians

**TARGET POPULATION AGE**

All ages are included in this measure

**TARGET POPULATION GENDER**

Either male or female

**STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

**Characteristics of the Primary Clinical Component**

**INCIDENCE/PREVALENCE**

Unspecified

**ASSOCIATION WITH VULNERABLE POPULATIONS**

Unspecified

**BURDEN OF ILLNESS**

Unspecified

**UTILIZATION**

Unspecified

**COSTS**

Unspecified

**Institute of Medicine National Healthcare Quality Report Categories**

**IOM CARE NEED**

Living with Illness  
Staying Healthy

**IOM DOMAIN**

## Data Collection for the Measure

### **CASE FINDING**

Users of care only

### **DESCRIPTION OF CASE FINDING**

All patients, regardless of age, with the diagnosis of osteoporosis

### **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

### **DENOMINATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

All patients, regardless of age, with the diagnosis of osteoporosis

#### **Exclusions**

Documentation of medical reason(s) for patient not receiving both calcium and vitamin D and not needing counseling regarding both calcium and vitamin D intake, and exercise (e.g., patient has dementia and is unable to receive counseling)

### **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

### **DENOMINATOR (INDEX) EVENT**

Clinical Condition

### **DENOMINATOR TIME WINDOW**

Time window is a single point in time

### **NUMERATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

Patients who are either receiving both calcium and vitamin D or have been counseled regarding both calcium and vitamin D intake, and exercise at least once within 12 months

#### **Exclusions**

None

## **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

### **NUMERATOR TIME WINDOW**

Fixed time period

### **DATA SOURCE**

Administrative data  
Medical record

### **LEVEL OF DETERMINATION OF QUALITY**

Individual Case

### **PRE-EXISTING INSTRUMENT USED**

Unspecified

## **Computation of the Measure**

### **SCORING**

Rate

### **INTERPRETATION OF SCORE**

Better quality is associated with a higher score

### **ALLOWANCE FOR PATIENT FACTORS**

Unspecified

### **STANDARD OF COMPARISON**

Internal time comparison

## **Evaluation of Measure Properties**

### **EXTENT OF MEASURE TESTING**

Unspecified

## Identifying Information

### ORIGINAL TITLE

Measure #5: counseling for vitamin D and calcium intake and exercise.

### MEASURE COLLECTION

[The Physician Consortium for Performance Improvement® Measurement Sets](#)

### MEASURE SET NAME

[Osteoporosis Physician Performance Measurement Set](#)

### SUBMITTER

American Medical Association on behalf of the AAFP, AAOS, AACE, American College of Rheumatology, The Endocrine Society, Physician Consortium for Performance Improvement®, and the National Committee for Quality Assurance

### DEVELOPER

American Academy of Family Physicians  
American Academy of Orthopaedic Surgeons  
American Association of Clinical Endocrinologists  
American College of Rheumatology  
National Committee for Quality Assurance  
Physician Consortium for Performance Improvement®  
The Endocrine Society

### FUNDING SOURCE(S)

Unspecified

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#### **FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST**

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

#### **INCLUDED IN**

Ambulatory Care Quality Alliance

#### **ADAPTATION**

Measure was not adapted from another source.

#### **RELEASE DATE**

2006 Oct

#### **MEASURE STATUS**

This is the current release of the measure.

#### **SOURCE(S)**

American Academy of Family Physicians, American Academy of Orthopaedic Surgeons, American Association of Clinical Endocrinologists, American College of Rheumatology, Endocrine Society, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Osteoporosis physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Oct. 15 p. [7 references]



## MEASURE AVAILABILITY

The individual measure, "Measure #5: Counseling for Vitamin D and Calcium Intake and Exercise," is published in the "Osteoporosis Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: [www.physicianconsortium.org](http://www.physicianconsortium.org).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

## NQMC STATUS

This NQMC summary was completed by ECRI Institute on October 12, 2007. The information was verified by the measure developer on November 21, 2007.

## COPYRIGHT STATEMENT

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